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**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1-16. (Canceled)

17. (Previously presented) A corrosion resistant member comprising a  $\text{Y}_2\text{O}_3$  sintered material that includes 99.9% by weight or more Y in terms of  $\text{Y}_2\text{O}_3$ , wherein

said  $\text{Y}_2\text{O}_3$  sintered material comprises at least metal element of AE, wherein AE is a group II element of the periodic table, and

wherein a difference in crystal grain size between the surface and the inside region of said  $\text{Y}_2\text{O}_3$  sintered material is not larger than  $30 \mu\text{m}$ .

18. (Previously presented) The corrosion resistant member according to claim 17, wherein said  $\text{Y}_2\text{O}_3$  sintered material further comprises any one of Si, Fe and Al.

19. (Currently amended) The corrosion resistant member according to claim 17, wherein said  $\text{Y}_2\text{O}_3$  sintered material ~~further~~ comprises ~~any of a group of metallic elements consisting of~~ Si, Fe, Al and AE (these metallic elements will hereinafter be collectively referred to as metal elements M), in concentrations of 300 ppm of less for Si in terms of  $\text{SiO}_2$ , 50 ppm or less for Fe in terms of  $\text{Fe}_2\text{O}_3$ , 100 ppm or less Al in terms of  $\text{Al}_2\text{O}_3$  and 350 ppm or less AE, wherein AE is a group II element of the periodic table, in terms of AEO, wherein AEO is a compound containing the AE and O.

20. (Previously presented) The corrosion resistant member according to claim 19, wherein the content ratio of any of the metal elements M contained at and near the surface to that contained deep inside of said  $\text{Y}_2\text{O}_3$  sintered material is in a range from 0.2 to 5.

21. (Previously presented) The corrosion resistant member according to claim 17, wherein said  $\text{Y}_2\text{O}_3$  sintered material shows dielectric loss tangent of  $2 \times 10^{-3}$  or less in a frequency range from 10 MHz to 5 GHz.

22. (Currently amended) The corrosion resistant member according to claim 17, ~~wherein the having a carbon content in said  $\text{Y}_2\text{O}_3$  sintered material that is 100 ppm by weight or less.~~

23. (Previously presented) The corrosion resistant member according to claim 17, wherein said  $\text{Y}_2\text{O}_3$  sintered material has void ratio of 5% or less.

24. (Previously presented) The corrosion resistant member according to claim 17, wherein said  $\text{Y}_2\text{O}_3$  sintered material has density of  $4.8 \text{ g/cm}^3$  or higher.

25-27. (Canceled)